

**E.) REMARKS/ARGUMENTS**

This Response is filed in response to an Office Action dated May 6, 2004.

Upon entry of this response, claims 8-13 and 16-20 will be pending in the Application.

In the outstanding Office Action, the Examiner rejected claims 8, 13 and 16-19 under 35 U.S.C. 102(b) as being anticipated by Bate et al. (U.S. Patent No. 4,271,782), and rejected claims 9-12 under 35 U.S.C. 112, second paragraph as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as his invention.

**Rejection under 35 U.S.C. § 102**

The Examiner rejected claims 8, 13 and 16-19 under 35 U.S.C. § 102(b) as being anticipated by Bate et al. (U.S. Patent No. 4,271,782), hereinafter referred to as "Bate."

Specifically, the Examiner stated that:

"[Bate] discloses in figures 1 and 5 and col. 3, lines 25-35 a method of manufacturing a linear tape comprising applying a composition comprising magnetic particles dispersed in a resin binder on to a tape structure, subjecting the coated tape to a magnetic field to orient the particles parallel to the substrate's major axis and curing the oriented coating. It is the examiner's opinion that the method of the reference anticipates the claimed method. The claimed thickness is encompassed by the reference.

Applicants respectfully traverse the rejection of claims 8, 16 and 16-19 under 35 U.S.C. § 102(b).

To begin, the examiner is reminded that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.' *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)." See Manual of

Patent Examining Procedure, 8<sup>th</sup> Edition (MPEP), Section 2131.

Bate, as understood, is directed to a method of manufacturing magnetic recording media. A substrate is fed from a feed reel to a take-up reel. A dispersion of magnetic particles dispersed throughout a proper binder is applied to the substrate apparatus by a coater apparatus, which may be a gravure roll coater, to form a coating.

The substrate and coating are passed through a strong magnetic field before drying in a drying oven. The magnet exerts a magnetic field on the particles in the coating which tends to cause the particles to physically orient themselves so that their respective axes are almost all aligned axially and parallel to one another along the length of substrate.

In contrast, amended independent claim 8 is directed to a method using a magnetic field to orient with respect to an article surface a plurality of non-spherical particles each including a major dimension and each of which can be moved by a force applied to each particle, the particles being of a material which will react with a magnetic field, the particles being disposed in a fluid medium which will not react to a magnetic field and the viscosity of which can be increased. The method comprises the steps of providing substantially parallel relative movement between the magnetic field, and each particle and the article surface in respect to which each particle is disposed, wherein the article surface is non-planar, while disposing the magnetic field with its direction relative to the article surface so that, during the relative movement, the magnetic field will locate an average of at least about 50% of the major dimensions in a position generally along the article surface in respect to which each particle is disposed, as each particle passes through the magnetic field, and increasing the viscosity of the medium to secure each particle in the position.

One of the features recited by Applicants in independent claim 8 is not taught or suggested by Bate. Applicants submit that Bate does not teach the use of a non-planar article surface. Bate is specifically directed to the use of magnetic recording media, which are planar, such as magnetic tapes or disks. As Bate does not teach or suggest the limitations of independent claim 8, Applicants respectfully submit that Bate does not

anticipate Applicants' invention as recited in independent claim 8.

Applicants submit that the amendments to claim 8 are not new matter since support for the amendment may be found in the specification and in original claim 9.

Therefore, for the reasons given above, independent claim 8 is believed to be distinguishable from Bate and, therefore, is not anticipated, nor rendered obvious by Bate.

In contrast to Bate, independent claim 13 is directed to a method for orienting with respect to an article surface a plurality of non-spherical particles each including a major dimension and each of which can be moved by a force applied to each particle, comprising the steps of disposing the particles in a fluid medium the viscosity of which can be increased, applying a force to the medium carrying the particles to flow the medium substantially parallel to the article surface, the medium applying a force on the particles sufficient to locate an average of at least about 50% of the plurality of particles with the major dimension in a position generally along the article surface in respect to which each particle is disposed and, increasing the viscosity of the medium to secure each particle in the position.

One of the features recited by Applicants in independent claim 13 is not taught or suggested by Bate. Applicants submit that Bate does not teach the flowing of the medium substantially parallel to an article surface. Bate is specifically directed to the application of the dispersion to a substrate, after which a substrate is passed through a strong magnetic field. Both the substrate and the dispersion are moving in the same direction at the same speed, as opposed to independent claim 13, in which the particles are flowing substantially parallel to the substrate. As Bate does not teach or suggest the limitations of independent claim 13, Applicants respectfully submit that Bate does not anticipate Applicants' invention as recited in independent claim 13.

Therefore, for the reasons given above, independent claim 13 is believed to be distinguishable from Bate and, therefore, is not anticipated, nor rendered obvious by Bate.

In contrast to Bate, independent claim 16 is directed to a method for orienting with respect to an article surface a plurality of non-spherical particles each including a major dimension and each of which can be moved by a force applied to each particle, comprising the steps of disposing the particles in a medium the viscosity of which can be increased, the medium being a fluid condition, disposing the medium with the particles on the article surface, locating the article surface substantially perpendicular to a force of gravity, maintaining the medium in the fluid condition for a time selected to enable the force of gravity to locate an average of at least about 50% of the plurality of particles with the major dimension in a position generally along the article surface in respect to which each particle is disposed, and increasing the viscosity of the medium to secure each particle in the position.

One of the features recited by Applicants in independent claim 16 is not taught or suggested by Bate. Applicants submit that Bate does not teach locating the article surface substantially perpendicular to the force of gravity, and maintaining the medium in the fluid condition to enable the force of gravity to locate an average of at least about 50% of the plurality of particles with the major dimension in a position generally along the article surface in respect to which each particle is disposed. Bate specifically illustrates in Fig. 1, a side elevational view (col. 3, lines 13-15), that the surface of the substrate is parallel to a force of gravity, not perpendicular. In addition, Bate only uses a magnet to orient the particles in the coating and does not use the force of gravity to do so. Bate does not teach enabling the force of gravity to locate an average of at least about 50% of the plurality of particles with the major dimension in a position generally along the article surface in respect to which each particle is disposed. As Bate does not teach or suggest the limitations of independent claim 16, Applicants respectfully submit that Bate does not anticipate Applicants' invention as recited in independent claim 16.

Therefore, for the reasons given above, independent claim 16 is believed to be distinguishable from Bate and, therefore, is not anticipated, nor rendered obvious by

Bate.

In contrast to Bate, independent claim 17 is directed to a method for orienting with respect to an article surface a plurality of non-spherical particles each including a major dimension and each of which can be moved by a force applied to each particle, comprising the steps of disposing the particles in a medium the viscosity of which can be increased the medium being in a fluid condition with the viscosity selected to provide a selected surface tension in the medium disposing the medium with the particles on the article surface, and maintaining the medium in the fluid condition for a time selected to enable the surface tension to locate at least about 50% of the plurality of particles with the major dimension in a position generally along the article surface in respect to which each particle is disposed.

One of the features recited by Applicants in independent claim 17 is not taught or suggested by Bate. Applicants submit that Bate does not teach the viscosity being selected to provide a selected surface tension in the medium. Bate only uses a magnet to orient the particles in the coating and does not alter the viscosity of the dispersion to do so. Bate does not teach enabling the surface tension to locate at least about 50% of the plurality of particles with the major dimension in a position generally along the article surface in respect to which each particle is disclosed. As Bate does not teach or suggest the limitations of independent claim 17, Applicants respectfully submit that Bate does not anticipate Applicants' invention as recited in independent claim 17.

Therefore, for the reasons given above, independent claim 17 is believed to be distinguishable from Bate and, therefore, is not anticipated, nor rendered obvious by Bate.

Dependent claims 18 and 19 are believed to be allowable as depending from what are believed to be allowable independent claim 17 for the reasons given above. In conclusion, it is respectfully submitted that claims 8, 13 and 16-19 are not anticipated nor rendered obvious by Bate and are therefore allowable.

**Rejection under 35 U.S.C. § 112**

The Examiner rejected claims 9-12, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 9, the Examiner pointed out that "about 30" is vague and indefinite. Applicants note that the original parent Application upon which this Application depends used the language "about 30" in claim 9. Applicants submit that their failure to include the "" was a typographical error and that its inclusion is not new matter given that this was included in the original parent Application.

The Examiner also rejected claim 12, since the phrase "the magnetic flakes" has no support in the independent claim. In response, Applicants have changed the language in claim 12 from "the magnetic flakes" to "particles," for which support may be found in now independent claim 9. As support for this amendment may be found in the specification, Applicants submit that no new matter has been entered as a result of this amendment. In addition, Applicants have added new claim 20, which is directed in part to the particles being "magnetic flakes." As support for this amendment may be found in original claim 12 and in the specification, Applicants submit that no new matter has been added by new claim 20.

The Examiner has also rejected claim 10 because "the magnetic...the distance...the relative movement" have no support in the independent claim. In response Applicants note that "the magnet" of claim 10 has antecedent basis in now independent claim 9. Applicants also note that "the distance" currently has support in now independent claim 9. Applicants also note that "the relative movement" currently

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has support in now independent claim 9. Applicant respectfully request reconsideration and withdraw of the rejections of claims 9-12 under 35 U.S.C. 112, second paragraph.

### **Amendment to the Claims**

Applicant has amended claim 9 to include the limitations of original independent claim 8. As these limitations were already present in the original claim 8, and as since claim 9 depends from the original claim 8, Applicants submit that no new matter has been added as a result of this amendment.

Applicant has amended claim 17 to correct a typographical error. As these errors are typographical in nature, Applicants submit that no new matter has been added as a result of the amendments to claim 17.

### **CONCLUSION**

In view of the above, Applicants respectfully request reconsideration of the Application and withdrawal of the outstanding objections and rejections. As a result of the amendments and remarks presented herein, Applicants respectfully submit that claims 8, 13 and 16-19 are not anticipated, or rendered obvious, by Bate, and thus are in condition for allowance. In addition Applicants respectfully request reconsideration and withdraw of the to claims 9-12 under 35 U.S.C. 112, second paragraph. As the claims are not anticipated by the applied art in view of the applied art, Applicants request allowance of claims 8-13 and 16-20 in a timely manner. Applicants submit that no new matter has been added by the amendments to the claims. If the Examiner believes that prosecution of this Application could be expedited by a telephone conference, the Examiner is encouraged to contact the Applicants.

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The Commissioner is hereby authorized to charge any additional fees and credit any overpayments to Deposit Account No. 50-1059.

Respectfully submitted,  
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